



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,658	09/25/2003	Matthew Richard McAlonis	17891 (AT 20958-2079)	8365

7590 09/22/2004

Robert Kapalka
Tyco Electronics Corporation
Suite 140
4550 New Linden Hill Road
Wilmington, DE 19808

EXAMINER

GILMAN, ALEXANDER

ART UNIT	PAPER NUMBER
----------	--------------

2833

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/670,658	MCALONIS, MATTHEW RICHARD	
	Examiner	Art Unit	
	Alexander D Gilman	2833	<i>AG</i>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-12,14-19 and 21-23 is/are rejected.
- 7) ☐ Claim(s) 3,13 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4, 14, 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Smoll (US 5,417,119).

With regard to claim 1, Smoll (US 5,417,119) discloses an electrical connector comprising:

at least one body (4) comprising a passageway for a flow of a conductive fluid

a first conductive pin (5a) in fluid communication with said passageway; and

a second conductive pin (5b) in fluid communication with said passageway,

wherein a conductive path is established through said conductive ink between said first

and second conductive pins when said conductive fluid flows through said passageway.

With regard to claims 10, 11, Smoll discloses an ink monitoring connector assembly (col. 1, line 10) as applied to claim 1 above.

With regard to claim 4, 14, 21, Smoll discloses that at least one of said first and second pins bifurcates fluid flow through said passageway.

Claims 1, 2, 9-12, 16, 17, 19, 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Smoll (US 5,685,698).

With regard to claim 1, Smoll (US 5,685,698) discloses an electrical connector comprising:

at least one body (50) comprising a passageway for a flow of a conductive fluid

a first conductive pin (62) in fluid communication with said passageway; and

a second conductive pin (63) in fluid communication with said passageway,

wherein a conductive path is established through said conductive ink between said first

and second conductive pins when said conductive fluid flows through said passageway.

Art Unit: 2833

With regard to claims 10, 11, 17 Smoll discloses an ink monitoring connector assembly (col. 1, line 10) as applied to claim 1 above.

With regard to claims 2, 12, 19, Smoll discloses that at least one of said first and second conductive pins (62, 63) includes first and second parallel sides, said parallel sides oriented parallel to a direction of fluid flow of said conductive fluid.

With regard to claims 9, 16, 23, Smoll discloses that contact pins (62, 63) comprises a square post.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim Rejections - 35 USC § 103

Claims 6 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smoll (US 5,417,119) in view of Sugiyama.

Smoll discloses all of the limitations except for explicitly teaching a combination of the connectors.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to

include the two connectors attached, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. Such a combination of the connectors would be appropriate, for example, in ink detection sensors for a combination of ink reservoir in color inkprinter (For example US 6,568,790)

Art Unit: 2833

Claims 5, 15, 22, are rejected under 35 U.S.C. 103(a) as being unpatentable over Smoll (US 5,417,119) in view of Wada

Smoll discloses all of the limitations except for explicitly teaching that a portion of one of said first and second pins is semi-cylindrical.

Wada (US 5,269,191) discloses (Fig. 1) that a portion (13a) of one of said first and second pins is semi-cylindrical.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form a portion of one of said first and second pins semi-cylindrical shaped, as taught by Wada , to prevent disruptions in ink flow./

Allowable Subject Matter

Claims 3, 13 , 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

No prior art has been found to anticipate or render obvious the presently claimed subject matter.

Specifically, none of the prior art of record discloses the combination of the limitations presented including the pins comprising a passageway therethrough for passage of said conductive fluid.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander D Gilman whose telephone number is 571 272-2004. The examiner can normally be reached on Monday-Friday, 10:30 a.m. - 8:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on 571 272-2800 ext. 33. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2833

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

09/14/2004

A handwritten signature in black ink that reads "Alex Gilman". The signature is written in a cursive, flowing style.

**ALEXANDER GILMAN
PRIMARY EXAMINER**